JOSEPH (DAN) PENNINGTON

NIH-Cambridge Scholar 2007

Degree: Harvey Mudd College, B.S. Biology, 2002

Research Area: Molecular biology; Aging; Cancer Research

Dan Pennington graduated from Harvey Mudd College in 2002 with a B.S. in Biology. One early experience with research took place after his second year of college when he began to study the role of caliciviruses in childcare center gastroenteritis outbreaks. The following summer Dan pursued his interest in molecular biology at the University of North Carolina, where he studied two component regulatory systems in *E. coli* leading to a publication in *Molecular Microbiology*. At Harvey Mudd, Dan used an Optical Coherence Microscope to create time-lapse movies of gastrulation in frog embryos and contributed to the interdisciplinary team constructing the microscope by evaluating new features from a biological perspective. After college, Dan matriculated at Eastern Virginia Medical School, and pursued his interest in biomedical research in the lab of Janet McElhaney, comparing the immune responses of young (20-40y) people, older (65y) people, and older people with congestive heart failure (CHF) to influenza vaccination. After his second year of medical school, Dan was awarded a Howard Hughes Medical Institute – National Institutes of Health Research Scholarship. This led to work in Dr. David Gius' lab in the National Cancer Institute studying SIRT3, a member of the sirtuin gene family, which is thought to play a role in the oxidative stress response and possible involvement in caloric restriction-mediated lifespan. At Cambridge he will continue this project in the lab of Nobel laureate John E. Walker. Outside of the research lab, Dan enjoys sailing, and has found time to play lacrosse for the Cambridge University team. Dan looks forward to studying in Cambridge and Bethesda, stating that, "Being able to work with as renowned a scientist as John Walker and a rising star like David Gius at the same time is a really unique opportunity. Not only is the scientific training excellent, but I am gaining a broader view of science than I'd be able to in any single lab."